

## PROJECT DESCRIPTION

## I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal with interconnect at the intersection of MD 190 (River Road) and Whittier Blvd/Winston Drive in Montgomery County. MD 190 (River Road) is assumed to run on a north-south direction.

## II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA four-phase, semi-actuated mode, with the MD 190 (River Road) approaches running concurrently. The Whittier Blvd/Winston Drive approaches shall also run concurrently.
- A full-traffic-actuated, eight-phase controller with three (3) four channel, rack mount loop detector amplifiers, L.A.U. and L.A.U. Panel with associated harnesses housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

## III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.
- Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. Contact Mr. Bob Gonzales at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. Also the Contractor must contact Montgomery County TMC at (240) 777-2100 at least 48 hours prior to any digging to locate traffic signal equipment. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

## EQUIPMENT LIST

## A) EQUIPMENT TO BE SUPPLIED BY S.H.A.

ITEM NO	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry	1 EA
9044	Controller cabinet, size "6"	1 EA
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	1 EA
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	111 SF
	D3-2 "Whittier Blvd/6600/ Winston Drive 6200" mast arm mounted.	2 EA
	D3-2 "Winston Drive/6200/ Whittier Drive 6600" mast arm mounted.	2 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted.	1 EA
	R3-6 "LEFT TURN AND THRU" sign, (30" x 36") mast arm mounted.	1 EA
	R10-11b "NO TURN ON RED" sign, (30" x 36") mast arm mounted.	1 EA
Neg.	Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS MD 190".)	1 EA

## B) EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
2002	Test Pit Excavation	4 C.Y.
6004	4" concrete sidewalk.	55 S.F.
8001	Pre-manufactured camera to controller (250' length) cable	2 EA
8003	Pre-manufactured camera to controller (500' length) cable	2 EA
8006	Cut, clean, galvanize and cap traffic signal structure.	2 EA
8010	Furnish and install 12" pedestrian signal head section	4 EA
8011	Furnish and install 12" vehicular traffic signal head section	27 EA
8020	Furnish and install electrical utility service equipment (120/240 V, 1 phase 3 wire system).	1 EA

## B) EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR (CON'T)

ITEM NO	DESCRIPTION	QUANTITY
8022	Furnish and install 27' mast arm pole and 50' mast arm. (Cut to 21')	1 EA
8026	Furnish and install 15' T mast arm pole and 60' mast arm.	1 EA
8030	Furnish and install breakaway pedestal pole (any size).	1 EA
8035	27' steel pole and twin 50'/70' mast arms.	1 EA
8047	Remove and dispose of existing foundation 12" below grade.	4 EA
8048	Remove and dispose of existing material and equipment per assignment.	1 EA
8049	Furnish and install video detector camera.	4 EA
8051	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trench.	40 L.F.
8052	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	260 L.F.
8053	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trench.	70 L.F.
8059	Furnish and install concrete for signal foundation.	17 C.Y.
8062	Furnish and install No. 6 AWG stranded bare copper ground wire.	375 L.F.
8065	Furnish and install 2" schedule 80 rigid polyvinyl chloride - bored.	20 L.F.
8074	Furnish and install electrical handhole.	5 EA
8077	Install overhead sign.	111 S.F.
8078	Furnish and install 12-pair communication cable, jelly-filled. (underground).	275 L.F.
8082	Furnish and install ground rod - 3/4" x 10'.	5 EA
8085	Furnish and install electrical cable - 3 conductor (No. 14 AWG).	200 L.F.
8086	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	100 L.F.
8087	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	950 L.F.
8093	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trench.	20 L.F.
8095	Install controller and cabinet base mount.	1 EA
Neg.	Pull back and reroute 12-pair interconnect cable	150 L.F.
Neg.	Relocate existing splice cabinet	1 EA
Neg.	Install pushbutton and sign.	1 EA

## C) EQUIPMENT TO BE REMOVED

MCDPW&T FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

## D) EQUIPMENT TO BE FURNISHED BY MCDPW&amp;T

ITEM NO	DESCRIPTION	QUANTITY
	SPLICE CABINET	1 EA

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Lee Starkloff  
Assistant District Engineer - Traffic  
Phone: (301) 513-7318

Mr. Raleigh Madley  
Assistant District Engineer - Maintenance  
Phone: (301) 513-7304

Mr. Augie Rebish  
District Engineer - Utility  
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

The power company representative is:

Eliza Hemingway  
PEPCO  
4061 Powder Mill Road  
Suite 600 Center Park II  
Calverton, MD 20705  
Phone: 301 931-2880

## SEQUENCE OF OPERATION SHEET

MD 190  
RUNS IN AN  
NORTH-SOUTH  
DIRECTION

TRAFFIC OPERATIONS SECTION  
DIVISION OF TRAFFIC ENGINEERING  
MONTGOMERY COUNTY, MARYLAND

INTERSECTION: MD 190 AND WHITTIER BLVD / WINSTON DRIVE NO. \_\_\_\_\_ PHASING \_\_\_\_\_

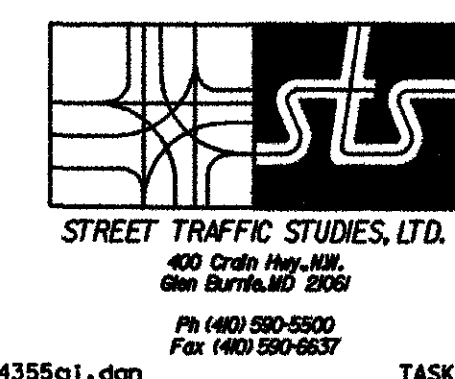
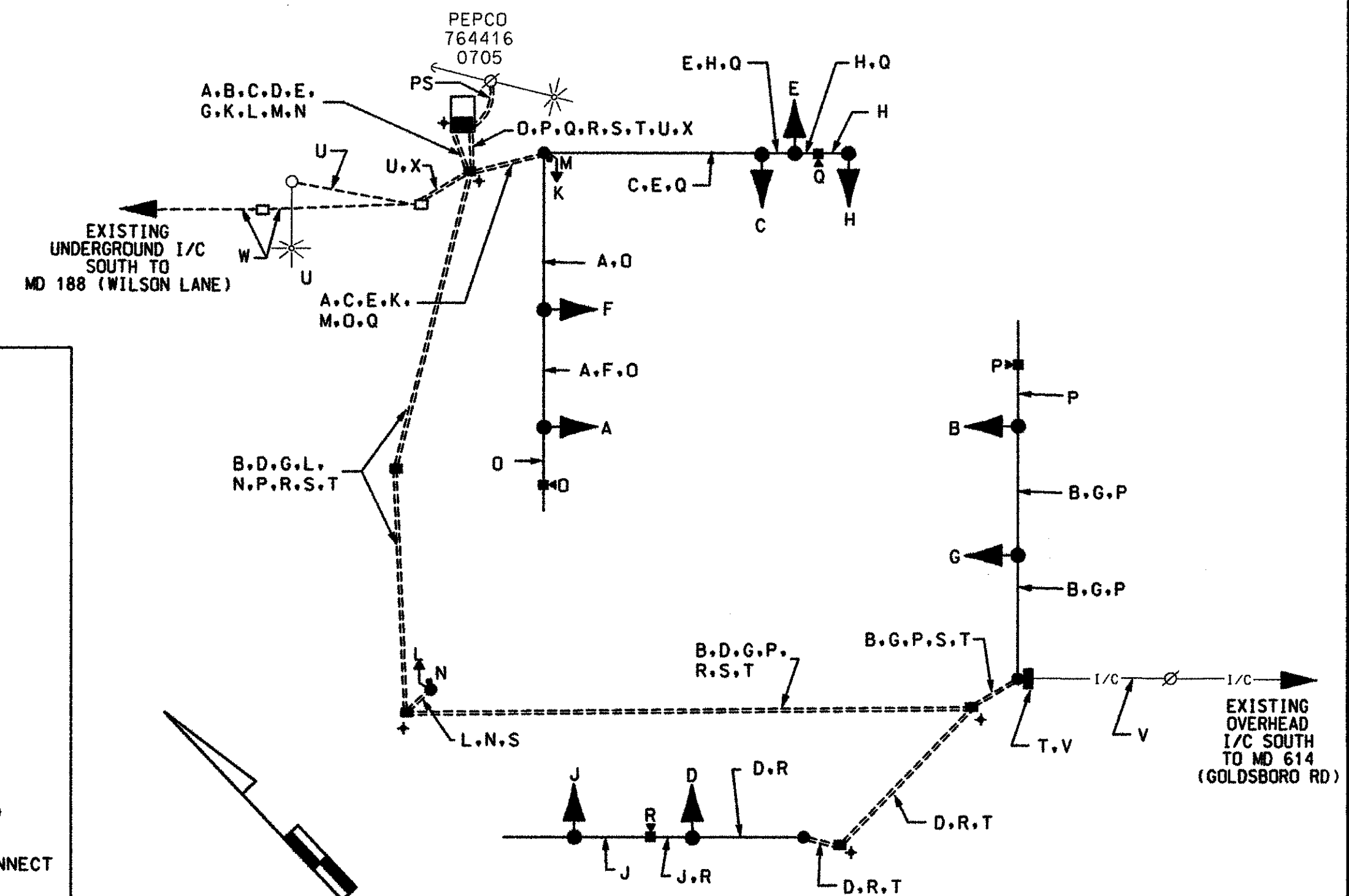
SIGNAL NO.	SIGNAL HEAD INDICATIONS				
	1-9				10, 11
TOTAL:	9				2
LEGEND	(R)	(R)	(R)	(R)	(H)
OPTICALLY LIMITED	(Y)	(Y)	(Y)	(Y)	(H)
R RED	(G)	(G)	(G)	(G)	(H)
Y YELLOW					
G GREEN					
ARROW					
F FLASHING	12"	8"	12"	12"	9" or 12"

SIGNAL NO.	SEQUENCE OF OPERATION							
	1	2	3	4	5	6	7	8
1	G	Y	R	R	R	R	R	R
2	G	Y	R	R	R	R	R	R
3	G	Y	R	R	R	R	R	R
4	G	Y	R	R	R	R	R	R
5	R	R	R	G	G	G	Y	R
6	R	R	R	G	G	G	Y	R
7	R	R	R	G	G	G	Y	R
8	R	R	R	G	G	G	Y	R
9	R	R	R	G	G	G	Y	R
10	DW	DW	DW	WK	FL/DW	DW	DW	DW
11	DW	DW	DW	WK	FL/DW	DW	DW	DW
PHASE	2 & 6	ALL RED			4 & 8			RED

NOTES:

SUBMITTED:	CHECKED:	APPROVED:
IN SERVICE BY:	DATE:	TIME:

## WIRING DIAGRAM



TRAFFIC ENGINEERING DESIGN DIVISION  
MD 190 AND WHITTIER BLVD / WINSTON DR

DRAWN BY: J. ALLEN JR.	F.A.P. NO. S.H.A. NO. COUNTY: MONTGOMERY	TS NO. 3176	SHEET NO. 2 OF 2
CHECKED BY: NONE	LOG MILE: 15019013.55	T.I.M.S. NO. F679	
DATE: 4-14-03			